

xanthan gum, guar gum, starch (including cook-up and cold water starches); and preservatives like sorbic acid, sodium benzoate, potassium benzoate, potassium sorbate and glucono-delta-lactone. Still other optional additives that may be employed in the reduced sourness w/o/w emulsion of this invention include spices like salt, sugar, ginger, nutmeg, basil, cinnamon, onion, garlic and pepper; pieces or particulates of meats (like ham, bacon, pork, fish, poultry), vegetables (like carrots, celery, cabbage, cucumbers), potato, macaroni or combinations thereof.

[0032] In a preferred embodiment, when optional additives are employed, those that are water soluble are added to the water in the primary phase, the water in the external phase, or both; and the optional additives that are not water soluble are preferably only added in the external phase. In an especially preferred embodiment, primary phase and external phase concentration ratios of salt and sugar are maintained so that no appreciable change in water droplet diameter size is observed.

[0033] When optional additives are employed, they typically make up less than about 12.0% by weight of the total weight of the w/o/w emulsion, and preferably, from about 0.1% to about 10.0% by weight of the total weight of the w/o/w emulsion.

[0034] There is essentially no limitation to the types of food compositions that may employ the reduced sourness w/o/w emulsion of the present invention. Therefore, such a w/o/w emulsion can be used as a base for hot, Hollandaise, Alfredo and Bernaise sauces. The reduced sourness w/o/w emulsion of this invention may also be used in dressings for salads as well as a base for light, low-fat and fat-free mayonnaises and dips.

[0035] The following examples are provided to facilitate an understanding of the present invention. The examples are not intended to limit the scope of the claims.

#### EXAMPLE 1

[0036] Primary emulsion was made by mixing the following ingredients under moderate shear. Oil and emulsifier were mixed first, followed by the addition of the remaining ingredients.

Ingredient	Wt. % based on total weight of primary emulsion	Wt. % based on total weight of w/o/w emulsion
Oil	38.8	30.0
Emulsifier (PGPR)	2.7	2.1
Water	53.9	41.7
Vinegar	2.0	1.6
Salt	1.3	1.0
Sugar	1.3	1.0
Total	100.0	77.4

#### EXAMPLE 2

[0037] External phase mixture was prepared by mixing the following ingredients under moderate shear:

Ingredient	Wt. % based on total weight of external phase mixture	Wt. % based on total weight of of w/o/w emulsion
Modified egg emulsifier	21.2	5.0
Starch	4.2	1.0
Xanthan gum	0.1	0.023
Vinegar	6.4	1.5
Salt	4.2	1.0
Sugar	7.6	1.8
Water	56.3	13.3
Total	100.0	23.6

#### EXAMPLE 3

[0038] The w/o/w emulsion of the present invention was prepared by slowly adding and mixing the primary emulsion of Example 1 to the external phase mixture of Example 2, producing a rough w/o/w emulsion. The rough w/o/w emulsion was fed to a commercially available Charlotte® colloid mill to produce a reduced sourness emulsion with a dispersed primary aqueous phase having droplets with diameters from about 1 to about 4 microns and oil droplets having diameters from about 7 to about 30 microns.

#### EXAMPLE 4

[0039] About twenty-four (24) sealed sixteen (16) oz. jars comprising w/o/w emulsion similar to the one made in Example 3 were stored at ambient temperature. After about ten (10) months, mold growth and flavor loss were not observed.

#### EXAMPLE 5

[0040] Reduced sourness w/o/w emulsion similar to the one made in Example 3 may be compared to a low-fat single aqueous phase oil-in-water emulsion utilized in conventional low-fat mayonnaise products. Panelist who sample the w/o/w emulsion of this invention and the single aqueous phase oil-in-water emulsion used in commercially available low-fat mayonnaise products will conclude that the w/o/w emulsion of this invention is less sour than the conventional low-fat single aqueous phase oil-in-water emulsion.

[0041] The results obtainable above indicate that the superior w/o/w emulsion of the present invention is microbiologically stable and better tasting than conventional emulsions, even with high water levels.

##### 1. A w/o/w emulsion comprising:

- (a) a primary phase comprising a water-in-oil emulsion; and
- (b) an external aqueous phase,

the w/o/w emulsion has an amount of water in the primary phase (W1) and in the external aqueous phase (W2), and an amount of acidulant in the primary phase (A1) and in the external aqueous phase (A2) wherein  $W1 > W2$  and  $A1 > A2$ .

2. The w/o/w emulsion according to claim 1 wherein the w/o/w emulsion has a total weight of water, and the primary phase comprises from about 55.0% to about 90.0% of the total weight of water.